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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,671	11/09/2001	Masayoshi Nakamura	2001_1660A	5826
513	7590	03/18/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			PSITOS, ARISTOTELIS M	
		ART UNIT	PAPER NUMBER	
		2653	6	
DATE MAILED: 03/18/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/986,671	Examiner	Art Unit Aristotelis M Psitos 2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 25 April 2003.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-10 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-10 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 09 November 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 5.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

The IDS of 4/25/03 has been reviewed and made of record.

### *Specification*

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Objections*

Claims 3-10 are objected to because of the following informalities: In particular, these dependent claims are presented as wherein clauses; however, there is no particular positively recited element to provide/yield the desired result(s). Appropriate correction is required.

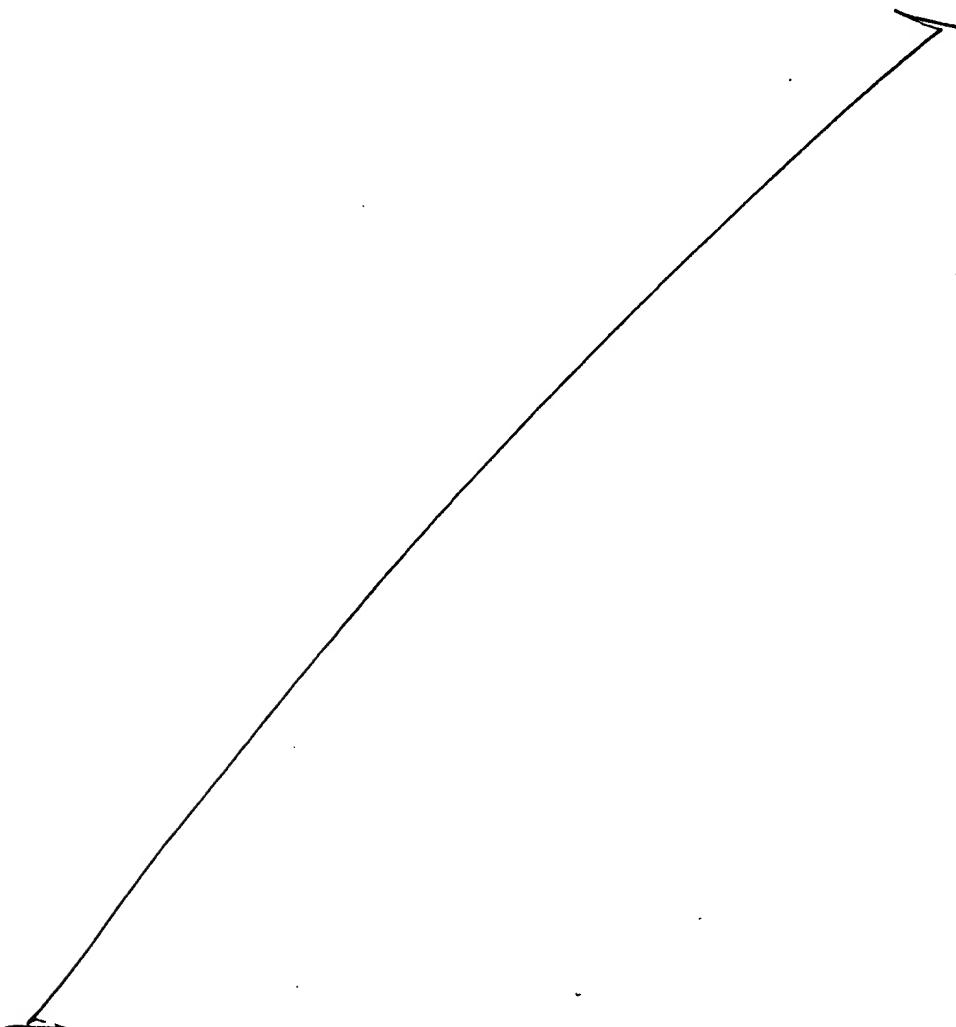
AS FAR AS THE CLAIMS RECITE POSITIVE ELEMENTS AND AS INTERPRETED THE FOLLOWING ART REJECTIONS ARE MADE.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katoh further considered with Leonowich and both further considered with Ishibashi et al.



Katoh is relied upon for the reasons as presented in the submitted EP search report. It discloses in this environment the overall system relying upon pll and a phase and frequency comparators.

The specifics with respect to the charge pump element, gain command, resistor and capacitor for instance are not found in the primary reference.

Leonowich (US equivalence to the cited DE and EP reference) does disclose such elements in this environment.

It would have been obvious to modify the base system of Katoh with the above teaching from Leonowich for the reasons stated in the abstract of Leonowich.

Although the gain is appropriately controlled predicated upon data density, there is no specific mentioning of a "speed" detector.

Ishibashi et al discloses in this environment the ability of altering the gain of the pll predicated upon the detected linear velocity – see col. 12 lines 43 plus.

It would have been obvious to modify the base system of Katoh and Leonowich with the above further teaching from Ishibashi et al, motivation is to appropriately control the gain with respect to the detected "speed" (linear velocity) of the signal and hence appropriately provide for a corrected output signal.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katoh considered with Leonowich, both considered with Ishibashi et al and all further considered with Okada et al.

Satoh, Leonowich and Ishibashi et al are relied upon for the reasons as stated above.

Claim 2 differs from claim 1 by having the digital filter and NCO. These elements are known and further taught by Okada et al – see figure 22.

It would have been obvious to modify the base system of Katoh, Leonowich and Ishibashi et al with the above further teaching from Okada et al, motivation is provide for a digitized pll, and its inherent improvement.

6. Claims 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 or 2 above, and further in view of themselves.

The examiner interprets these dependent claims as desired results that flow/follow from the elements positively recited in their respective parent claims. Hence because no additional elements are provided, and as the elements in the respective parent claims are met, these limitations are inherently present. If applicants' can convince the examiner that such is not the case (not inherently present), then the examiner would introduce rejections under 35 USC 112 as failing to recite appropriate elements to define their invention.

#### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tateishi – see figures 4 & 5 also teach/disclose a "speed" detector in this environment and could be relied upon in place of the Ishibashi et al reference in the above rejections.

Hayashi et al and Hisakado et al are cited as illustrative of pll locking systems in this environment.

**Hard copies of the application files are now separated from this examining corps; hence the examiner can answer no questions that require a review of the file without sufficient lead-time.**

**Any inquiries concerning missing papers/references, etc. must be directed to Group 2600 Customer Services at (703) 306-0377.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2653

AMP

